

indefinite because the term “protective immune response” has been defined broadly by Applicants. In response, Applicants respectfully point out that the term “protective immune response” (the complete term recited in pending claim 1) is particularly defined in this application, as it is used in the vaccine art. *See*, in particular, in the application as originally filed at page 43, lines 1-7. This definition makes it clear that the term, as used in this application, specifically refers to responses resulting in the production of mediator substances, such as cytokines and antibodies, that is well known to occur upon the stimulation of leukocytes (including T and B lymphocytes) and whose production neutralizes a particular antigen. Applicants therefore submit that the term is fully definite within the context of the application.

With regard to IgE antibodies mentioned by the Examiner, Applicants point out that IgG antibodies (and not IgE antibodies) are the ones that are generated in response to the inventive recombinant proteins and the IgG antibodies play a role in providing the desired protective immune response of the present invention. Additionally, the Examiner states that Applicants’ definition also involves the activation of T cells, and that the number of stimulated T-cells necessary to raise a “protective” immune response is not discussed. Applicants note that there is no need to describe any particular number of T-cells or B cells that are stimulated using the inventive recombinant proteins. Applicants note that there are many examples throughout the specification of the use of “protective” consistent with its definition and as it is used in the vaccine art, for example with reference to the published application:

para 37: Introduction of mutations in the scaffold protein, introducing or modulating or eliminating existing antibody binding surface contours or epitopes homologous to structures of the allergen, results in creation of stable protein variants, ***capable of raising a protective immune response*** and with a lowered risk of inducing side-effects, since the mutated scaffold protein variant exhibits a lower antibody reactivity compared to the natural allergen.

“The purpose is to generate surface contours of the scaffold protein having similarity to the naturally occurring allergen in question, in order to enable stimulation of immune responses that will generate ***protective IgG antibodies*** with the ability to block IgE binding to the natural allergen and thereby alleviate or cure allergy symptoms.”

para 42: The affinities of the IgE interactions should be reduced to a level limiting or abolishing the risk of triggering effector cell degranulation, while at the same time retaining the capacity to induce formation of ***protective antibodies reactive with the allergen*** in question.

would like to point out that claim 54 has been amended (inadvertently omitted in the previous response) to recite “comprises two or more primary mutations spaced by at least one non-mutated amino acid residue,” as is recited in the other independent claims. Analogous amendments have been made in claims 52 and 53. Applicants note that King is directed to hybrid constructs wherein a scaffold protein is substituted with relatively long stretches of amino acids of a native allergen, and therefore does not contain “two or more primary mutations spaced by at least one non-mutated amino acid residue.” Neither King nor Applicants’ recombinant proteins would encompass the native allergen itself.

In view of the present amendments, King does not teach all of the elements of the rejected claims, and therefore does not anticipate the present application. Applicants respectfully request that the rejection under 35 U.S.C. § 102(b) under King be withdrawn.

CONCLUSION

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

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Respectfully submitted,

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